

The Office Action mailed April 14, 2008 incorporates the Restriction Requirement made in the Office Action of December 12, 2007 and contains additional requirements with respect to List III. Accordingly, this Response incorporates the substance of Applicants' argument from the Response filed January 14, 2008 and contains an election regarding the additional species in List III.

In the Requirement for Restriction dated April 14, 2008, the Examiner has imposed the following species election requirements on claims 1-10 as originally filed in the application:

List I. Linker Protein

- A. Leptin
- B. Malic enzyme

List II. Substrate Peptide Form

- A. Peptide monomer
  - i. Kemptide/SEQ ID NO: 1
  - ii. Ab1/SEQ ID NO: 8
- B. Dimer of monomer-proline-monomer
  - i. Kemptide/SEQ ID NO: 1
  - ii. Ab1/SEQ ID NO: 8
- C. Multimer where monomers are linked to each other by a proline
  - i. Kemptide/SEQ ID NO: 1
  - ii. Ab1/SEQ ID NO: 8

List III. Reactive Protein

- A. Enzyme
  - i. Protein kinase A
    - 1. Cy3-labeled anti-phosphorylation serine antibody
    - 2. Cy3-labeled anti-phosphorylation tyrosine antibody
  - ii. Ab1 kinase
    - 1. Cy3-labeled anti-phosphorylation serine antibody
    - 2. Cy3-labeled antiphosphorylation tyrosine antibody
- B. Antibody/fluorescence labeled antibody

Applicants hereby elect the following:

From the List I of linker proteins, applicants elect **leptin**.

From List II of substrate peptide form species, applicants elect **dimer of monomer-proline-monomer**, and elect **sub-species kemptide/SEQ ID NO: 1**.

From List III of reactive proteins, applicants elect **antibody/fluorescence labeled antibody**.

Concerning the further requirement of listing claims readable on the elected species, the claims readable on **leptin as the List I protein** are **claims 1-10**.

The claims readable on the List II substrate peptide species of **dimer of monomer-proline-monomer**, and **sub-species kemptide/SEQ ID NO: 1** are **claims 1-10**.

The claims readable on the List III **antibody/fluorescence labeled antibody** are **claims 1-7 and 9**.

These species elections are made with traverse.

The examiner has stated that the species identified at pages 3 and 4 of the Office Action lack unity of invention since they are not so linked as to form a single general inventive concept under PCT Rule 13.1. Nonetheless, both linker protein and substrate peptide are encompassed by claim 1, and relate to one another. They are combined with one another to provide a protein chip capable of allowing an increase in the reactivity between peptide with a low molecular weight and an enzyme with high molecular weight and between the peptide and the reactive antibody. Accordingly, these aspects of the claimed subject matter embody a single inventive concept.

The examiner has further contended that the invention of claim 5 is another generic invention in relation to claim 1. It is pointed out, however, that claim 5 further limits the protein chip of claim 1 to a specific substrate. Accordingly, claims 1 and 5 embody unity of invention with respect to their subject matter.

The examiner also has contended that claim 6 embodies another generic invention. In response, it is pointed out that claim 6 relates to a method for analyzing interaction between a reactive protein and its substrate peptide using the protein chip of claim 1. Accordingly, the protein chip recited in claim 1 is essential for carrying out the method of claim 6. Claims 1 and 6 therefore embody subject matter aspects of the same invention.

In order that this response fairly meets the substance of the Office Action in all respects, even though the election requirement is traversed by Applicants, a single disclosed species of each identified group: 1) leptin as the single specific linker protein of claim 2, 2) dimer [monomer-proline-monomer] as a single substrate peptide form of claim 3 and kemptide/SEQ ID NO: 1 as the single dimer of claim 4, 3) antibody/fluorescence labeled antibody as the single specific

reactive antibody of claims 7-10 is hereby elected, subject to the foregoing traversal. It is understood that in a species election, if any species is found to be allowable, that an additional species will be examined, until all species have been examined. If any generic claim is finally held to be allowable, all claims drawn to species containing all elements of the generic claim will also generally be held to be allowable. (MPEP § 806.04(d)).

### **CONCLUSION**

The examiner correspondingly is requested to reconsider the election requirements in light of the foregoing remarks, and to responsively examine all aspects of claims 1-10 as embodying a single invention.

No fees are believed to be due for the filing of this paper. However, should any fees be required or an overpayment of fees made, please debit or credit our Deposit Account No. 08-3284, as necessary.

If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 419-9350 to discuss same, in order that the prosecution of this application is expedited.

Date: May 14, 2008

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